ENVIRONMENTAL PUBLIC HEALTH TRACKING
ADVISORY GROUP MEETING
February 26, 2004

The next meeting is scheduled for Thursday, April 22, 2004, from 9 a.m. to 12 p.m., at the Country Inn & Suites, 2101 11th Avenue, Helena
(Previous meeting locations were already booked. This hotel is on the east side of town near the Capitol Exit of I-15.)

Attendees:

Jim Ahrens, Montana Hospital Assn.
Jim Aspevig, DPHHS/HAN
Rod Caldwell, USGS
Gary Carter, IHS, *via phone*
Rick Chiotti, MT OPI
John Coefield, MT DEQ Air Quality
Jim Edgar, DPHHS/Vital Statistics
Tom Ellerhoff, MT DEQ
Gail Gutsche, Montana State Legislator
Dana Headapohl, Occupational Medicine,
   St. Patrick's Hospital, *via phone*
Jim Hill, MT NRIS
Chris Korhonen, DPHHS/EPHT Epidemiologist
Debbi Lemons, DPHHS/Tumor Registry
Marjean Magraw, DPHHS/EPHT Coordinator
Wilda McGraw, DPHHS/CACH
Judy Murphy, MT Dept. of Labor & Industry
Curtis Noonan, UM CEHS
Lou Olcott, DPHHS/Biomonitoring Project

Joanne Oreskovitch, DPHHS/BRFSS
Robert Shepard, American Cancer Society Rep.
Jeanne Siefert, Dawson Co. Health Dept., *via phone*
Mike Spence, DPHHS/State Medical Officer,
Darren Steiner, DPHHS/OTD
Dan Strausbaugh, ATSDR
Diana Vanek, UM CEHS
Sandy Wagner, Libby Citizen Advocate

Additional Attendees:

Kathleen Androlewicz, Northrop Grumman
Ron Baldwin, Northrop Grumman
Jane Fournier, Northrop Grumman
Chris Deveny, Consultant for Community EH Assessments
Leah Dreyer, DPHHS/EPHT

The meeting opened with a welcome by Mike Spence. He noted that much progress has been made since the last meeting, including the current grants and programs in process. Attendees were asked to introduce themselves and note their representation. Marjean Magraw stated the agenda for the meeting, and then gave an update on the EPHT project.

EPHT PROJECT UPDATE

Marjean outlined the following accomplishments of the EPHT project since the last meeting.

IT Assessment
- Northrop Grumman (Information Technology consultants) will report on their progress at today's meeting. Testing of an electronic inventory template is in the final stages, and collection of data will be ready to begin in early March. The inventory of metadata will begin with current DPHHS and DEQ databases, and will expand to other State and Federal agencies.

Statewide Environmental Health Needs Assessment

The EPHT project is utilizing several methods to gather and prioritize information for a Statewide Environmental Health Needs Assessment. These include:
- Advisory Group: will develop criteria for prioritizing environmental health concerns
- Behavioral Risk Factor Surveillance Survey (BRFSS): twenty questions on environmental health have been added to the 2004 random survey of Montana citizens, which is currently being conducted. Several of the question address childhood and adult asthma.
- 11 Community Environmental Health Needs Assessments were funded in interested communities. Chris Deveny, the EPHT consultant for Community EH Assessments, will report on the status of the needs assessments.
- Dr. Wade Hill of MSU Bozeman is conducting electronic surveys of County Extension Agents, Tribal and County Public Health Staff, and County Commissioners. These surveys will be going out in the next few weeks.
- A survey of Advocacy Groups will be added in the future.

Pilot Data Linkage Projects
- The EPHT project will fund UM to conduct a pilot linking air quality data with health effects data from clinics and hospitals in a 3-county area, looking at information related to asthma and cardiovascular disease. Curtis Noonan is the epidemiologist working on this pilot.
- EPHT is also discussing a possible pilot in Butte to link existing hospital information with environmental hazard data. Their hospital informatics program and an environmental health program at Montana Tech would collaborate.

Partnerships
- Proposed contract with DEQ for agency data inventory.
- Proposed contract with NRIS to assist with GIS mapping of health data, inventory of other databases, and technical assistance with linking data.
- Staff from NRIS will attend the national EPHT partners conference in March.

Communication Plan
Copies of a draft Communication plan were distributed. The objective is to provide information to all Montana stakeholders. The plan identifies:
- Target audiences
- Existing venues to reach audiences
- Possible speakers to bring into existing venues
- Educational materials needs

Comments and additions to the plan were requested.

Committees & Related Groups
- MD conference call on how to reach health care providers across the state was conducted
- Asthma partners conference call conducted/statewide asthma coalition planned
- Children's Interagency EH task force continues to meet
- Interagency meeting on fish and environmental hazards held

Input requested from Advisory Group
- Input for communication plan

- Input on sources/information for an Advocacy Group mailing list
- Input on developing criteria for setting priorities for the Statewide EH needs assessment

COMMUNITY ENVIRONMENTAL HEALTH NEEDS ASSESSMENT PROJECT

Chris Deveny, the EPHT contract facilitator working with the eleven community-based environmental health needs assessment sites, presented to the group. The sites conducting the assessments are Butte-Silver Bow County, Cascade County, Crow Tribal Health, Dawson County, Flathead County, Fort Peck Tribal Health, Glacier County, Hill County, Lewis & Clark County, Ravalli County, and Yellowstone County.

The contractors use a community team and/or advisory group to provide oversight of the EH assessment process, and sites are encouraged to find what works best in their particular community. Some examples include:
- Butte: using community members representative of the county to form a needs assessment team.
- Hill: in the process of conducting a much broader community assessment, using existing community advisory groups.
- Yellowstone: doing preliminary work using the Board of Health and existing staff.
- Crow: using the Tribal Health Board as well as community members.

Contractors are using a variety of methodologies to obtain community input into the assessment process. Methods include:
- Surveys & Questionnaires: some sites have hired local colleges or universities to develop and conduct surveys, others are using a more informal questionnaire format, gathering information at various venues across their communities.
- Focus Groups: following the initial survey work, some sites will seek more detailed responses using focus groups and meeting with sub-populations in the community.
- Key Informant Interviews
- Community Forums
- Outreach at Events
- Others

Contractors will rank and prioritize EH issues of concern specific to their jurisdictions for use by the EPHT program, and will describe their assessment process in a final report. Contractors may experience many secondary benefits from going through the assessment process. For many of the communities, the assessment process is providing a forum for health departments and community members to communicate on environmental health issues. Additionally, the assessment is an opportunity for health department staff to work more in the community, becoming aware of concerns not traditionally addressed.

INFORMATION TECHNOLOGY ASSESSMENT & RECOMMENDATIONS FOR NETWORKING REPORT – NORTHROP GRUMAN MISSION SYSTEMS

Jane Fournier and Ron Baldwin of Northrop Grumman presented on the status of the EPHT Information Technology (IT) Assessment. Jane explained that the scope of the project is largely defined by three deliverables:

1. EPHT Information Technology Infrastructure Assessment – looking at the IT infrastructures of DPHHS, DEQ, and NRIS.

2. <u>Database Inventory Survey Template</u> – a survey designed to be sent out to the program and database managers of systems that may have information of interest to EPHT.
3. <u>Data Integration Assessment and Plans</u> – builds on information uncovered in first deliverable to develop ideas for creating a system that would track environmental and public health data, given the current infrastructure and data systems in Montana.

1. EPHT IT Infrastructure Assessment

Jane covered some of the results of the first deliverable.

- Challenges
  - o Physical infrastructure
  - o Disparate platforms
  - o Data extraction
  - o Matching disparate data
  - o What data to collect
  - o Cost
- Opportunities
  - o National standards (PHIN & NEIEN)
  - o Technology (XML, GIS, ETL, Web)
- Recommendations
  - o Standardize Data
  - o Involve the programs in the process
  - o Develop a standard trading partner agreement
  - o Utilize NRIS
  - o Build the EPHT system one pilot at a time

2. Database Inventory Survey Template

- Collect information about data and systems of interest to EPHT
- Web-based survey for ease of access and handling
- Type of data, platform, interfaces, program, sharing agreements, data attributes and collection modes
- Results stored in database for access and query capability
- Pilot complete

3. Data Integration Assessment and Plans

- Objectives for data integration
- Example of integration effort (Delaware)
- Considerations for data integration
- Integration options

Objectives for Data Integration

An integrated database of environmental health tracking information, which provides:

- Secure web-based access
- Automated data sharing, system to system
- Data reporting and analysis which support epidemiology
- National standards (PHIN & NEIEN)
- Data linkage between agencies, providers, clients, exposure events and disease reporting

Considerations for Data Integration

- Minimizing disruption to the operation of the current program systems
- Minimizing changes to current program systems and process flow
- Maintaining data confidentiality and security rules

- Providing an Open Architecture to ensure flexibility for future integration of new programs and systems
- Identifying research and analytical needs that will trigger the flow of data through exchange points

Mission for Data Integration for EPHT
- Integration of environmental exposure data with data on chronic diseases and birth defects
- Compatibility with CDC's Public Health Information Network (PHIN) and EPA's National Environmental Information Exchange Network (NEIEN)
  - Assure uniform data collection practices across the nation
  - Guidelines will provide a consistent method for coding data on the data collection forms
  - Standard data architecture and electronic data interchange format

Example of Integration Effort – Delaware Electronic Reporting and Surveillance System (DERSS)
- Design, development and COTS implementation for the Delaware Department of Health and Social Services, Division of Public Health – currently in development.
- Major Objectives
  - Support Statewide Communicable Disease Surveillance
  - Develop a system which is consistent with CDC's NEDSS concepts
  - Enhance Early Warning and Bioterrorism Preparedness
  - Development (.NET Framework), commercial off-the-shelf (COTS) software installation, and component testing in development environment at NGMS

Data Integration Options for EPHT
1. Fully populated Integrated Data Repository (IDR)
2. Partially populated Integrated Data Repository
3. Data integration engine with non-persistent data cache

Option 1: Major Features
- Centralized integrated data repository (IDR)
- Data collection and transformation into standardized relational format
- Data is stored redundantly on dedicated platform
- All data attributes to be reported must be imported into the repository
- Ability to create data marts
- Data synchronization/refreshing required
- Data not directly accessible from source system

Option 2: Major Features
- Centralized integrated data repository
- Data collection and transformation into standardized relational format
- Only most relevant data elements stored redundantly on dedicated platform
- Full data record may be imported from source system upon request
- Allows the full source data record to stay in its native format and environment
- Ability to create data marts
- Includes pointers back to the source information
- Data synchronization/refreshing may be required

Option 3: Major Features
- Metadata describes data from source systems

- Data pulled from various source systems as needed based on query criteria
- Data directly accessible from source system via integration engine
- Performance may be a problem
- No data redundancy
- No synchronization required
- Analytic reporting more problematic
- Data reported may be stored in various formats such as spreadsheets

Jim Aspevig asked how detailed the database inventory survey is, and if it tries to capture gaps in existing databases. Jane explained that the survey is broad in its coverage, and a follow-up survey could be done if an interest was shown for more information. The current survey was developed through consultation with Northrop Grumman staff and multiple agency partners to include information important to learning if databases can be linked. Jim also reiterated the necessity of developing partner data-sharing agreements.

Marjean asked how Delaware was integrating its data information. Ron explained that Delaware collected formatted lab and hospital data, specific for laboratory transactions describing tests and test results. Delaware is in the process of creating the Delaware Health Information Network (DHIN), which is specific to gathering and sharing medical and public health related information across public and private entities in Delaware. Delaware will also be using CDC's Public Health Information Network Messaging System (PHIN-MS) to share information from national laboratories and hospitals in a secure and encrypted way, and will also use the Hospital Disease Reporting System, which is a web-based application.

Gail Gutsche asked if there was a plan to fill data gaps, and Mike Spence explained that an inventory first needs to be done, and priorities need to be established.

Ron stated that in Northrop Grumman's IT Assessment, Option 2 is recommended for data integration.

Marjean reiterated that more discussion on this report will follow with the Advisory Group's IT committee.

DEVELOPING CRITERIA TO DETERMINE PRIORITY ENVIRONMENTAL HEALTH ISSUES – FACILITATED DISCUSSION

Judy Edwards, from the Montana Consensus Council, led a facilitated discussion on developing criteria to identify key environmental health concerns. The group was asked to develop a list of criteria to set priorities, discuss the list to score the criteria, and discussing relative risk and perception of risks. Below is the initial list developed by the group. It became apparent that there was a need to further define what specifically the criteria would be used for. They could be used to identify EH concerns that would be suitable as pilot projects in the next year, criteria for a broad wish list for items that should be tracked in MT in the long-term, or a list of EH concerns in MT that could be targeted in the next 5 years. This discussion will continue at the next Advisory Group meeting.

Initial criteria list to identify environmental health concerns

1. Numbers of people affected by problem
    a. Magnitude

        b. Severity
2. Transmissibility
3. Geography
4. Standards for quality of life years/ years of potential life lost (specific demographics)
5. Long-term impact on society
6. Ability to mitigate
7. Cost of mitigation
8. Adequate data/ data gaps
9. Man-made infrastructure/ built environment
10. Public demand to know; driven/not driven by political will
11. Use of existing standards; EPA, ATSDR, PACE-EH
12. Ability to look at root causes
13. Data quality
14. Measurability
15. Environmental impact, not necessarily human health impact

Initial prioritization of the above list:

1. People affected, as measured by
      a. Magnitude
      b. Severity/ years of life lost
      c. Vulnerable populations

2. Ability to mitigate
      a. Long-term impact
      b. Impactibilty

3. Data availability and quality

4. Geography
      a. People/100 affected
      b. Urban v. rural

* Cost should remain as a footnote, not a driving factor: is this mitigation cost-effective, can we measure having made a difference?

The group agreed that the list of criteria and prioritization should be based first on medical and public health criteria and information, not political will or cost. It was also discuss that that group should look at existing criteria lists such as available from ATSDR and PACE-EH. Those will be attached and discussed at the next meeting.

WRAP-UP AND NEXT STEPS

Marjean thanked the group for attending, and noted that any suggestions for the next meeting or comments on the communication plan can be emailed to the EPHT team. The discussion on developing criteria will continue at the next meeting, set for **Thursday, April 22 in Helena**. The meeting adjourned at 12:00 p.m.